What is claimed is:

1. A nozzle arrangement (110, 210, 310, 410) for applying fluid (118) containing solid particles to a substrate (132) that is movable relative to the nozzle arrangement (110, 210, 310, 410), having an endpiece receiving element (112, 312) and an endpiece (114, 314) attached thereto, with a fluid channel formed in the nozzle arrangement (110, 210, 310, 410), which fluid channel has a connecting channel (120, 220, 420) that can be connected to a fluid supply line, a distribution channel (122, 222, 422) connected downstream, and an outlet channel (124, 224, 424) connected further downstream that leads into a fluid outflow slit (126),
characterized in that the connecting channel (120, 220, 420) and the distribution channel (122, 222, 422) are formed at least partially in the endpiece receiving element (112, 312), and that all changes of direction within the fluid channel are smaller than 90°.

2. A valve arrangement (110, 210, 310, 410) according to Claim 1,
characterized in that the distribution channel (122, 222, 422) is in the form of a hopper that has a floor (128) which is flush with the connecting channel (120, 220, 420) or is inclined with respect to the central axis of the latter by less than 90° and which has a circumferential surface (164, 264, 464), where the floor (128) and the at least one circumferential surface (164, 264, 464) merge into each other in the form of radii (266, 466).

3. A valve arrangement (110, 210, 310, 410) according to Claim 2,
characterized in that the distribution channel (122, 222, 422) becomes continuously smaller in the direction of flow, regarded in the sectional plane perpendicular to the fluid outflow slit (126), and expands continuously in the direction perpendicular to that, the cross section of the distribution channel (122, 222, 422) being essentially constant.

4. A valve arrangement (110, 210, 310, 410) according to one of Claims 2 or 3,
characterized in that the floor (128) and the at least one circumferential surface (164, 264, 464) of the distribution channel (122, 222, 422) are polished.

5. A valve arrangement (110, 210, 310, 410) according to one of Claims 1 through 4,
characterized in that the endpiece (114, 314) has a contact surface for introducing the substrate (132), which is bounded on one side by the fluid outflow slit (126), and that an angle between the central axis of the outflow channel (124, 224, 424) and the contact surface in the area of the fluid outflow slit (126), viewed in the plane perpendicular to the fluid outflow slit (126), is acute.

6. A valve arrangement (110, 210, 310, 410) according to one of Claims 1 through 5,
characterized by a pressurized gas channel (142) that is connectable to a source of pressurized gas, which pressurized gas channel is positioned on the side of the fluid channel facing away from the contact surface in such a way that a stream of gas emerging from the gas outflow orifice (140) flows toward the fluid outflow slit (126) in such a way that any fluid (118) which may collect on an outer surface of the nozzle arrangement (110, 210, 310, 410) located on a side of the fluid channel facing away from the contact surface is struck by the stream of gas.

7. A valve arrangement (110, 210, 310, 410) according to one of the preceding claims,
characterized by a spacer sheet positioned between the endpiece receiving element (112, 312) and the endpiece (114, 314), which bounds the distribution channel (122, 222, 422) on the side opposite the floor (128), and

which has a clearing that bounds the outflow channel (124, 224, 424) circumferentially.

8. A system for applying fluid (118) containing solid particles on a substrate (132), having a nozzle arrangement (110, 210, 310, 410) according to one of Claims 1 through 7 and a transport device (150) arranged to produce a relative motion between the nozzle arrangement (110, 210, 310, 410) and the substrate (132),
characterized in that an angle between the central axis of the outflow channel (124, 224, 424) of the nozzle arrangement (110, 210, 310, 410) and the transport direction (130) of the transport device (150) on the run-out side of the fluid outflow slit (126), viewed in the sectional plane perpendicular to the fluid outflow slit (126), is obtuse.

9. A system according to Claim 8, having a fluid supply line (575), a fluid drain line (578), a flow channel (587) connecting the fluid supply line and the fluid drain line and a filter arrangement (570, 670) having a planiform filter element (580, 581, 582) positioned in the flow channel, where the cross sectional areas of the fluid supply line (574), the fluid drain line (576), the flow channel (587) and the filter element (580, 581, 582) are essentially of equal size.

10. A system according to Claim 9,
characterized in that a plurality of planiform filter elements (580, 581, 582) with mesh size decreasing in the direction of flow are positioned in the flow channel (587).

11. A system according to Claim 9 or 10,
characterized in that the path of the flow channel (587) is essentially linear and the surface of the filter element (580, 581, 582) is perpendicular to the direction of flow of the flow channel.

12. A system according to one of Claims 9 through 11,
characterized by a housing (572) having a main direction of extension that coincides with the direction of flow, into which housing the filter element (580, 581, 582) is removably inserted by means of spacer sleeves (584, 585, 586).

13. A filter arrangement (570, 670) for use in a system according to one of Claims 9 or 10, having a fluid supply line (575), a fluid drain line (578), a flow channel (587) connecting the fluid supply line and the fluid drain line, and a planiform filter element (580, 581, 582) positioned in the flow channel, where the cross sectional areas of the fluid supply line (574), the fluid drain line (576), the flow channel (587) and the filter element (580, 581, 582) are essentially of equal size.

14. A filter arrangement (570, 670) according to Claim 13,
characterized in that a plurality of planiform filter elements (580, 581, 582) with mesh size decreasing in the direction of flow are positioned in the flow channel (587).

15. A filter arrangement (570, 670) according to Claim 13 or 14,
characterized in that the path of the flow channel (587) is essentially linear and the surface of the filter element (580, 581, 582) is perpendicular to the direction of flow of the flow channel.

16. A filter arrangement (570, 670) according to one of Claims 13 through 15,
characterized by a housing (572) having a main direction of extension that coincides with the direction of flow, into which housing the filter element (580, 581, 582) is removably inserted by means of spacer sleeves (584, 585, 586).